

SUBJECT INDEX

- Ability
 - quantitative-relational 19-43
 - self-assessment 11
- Achievement motivation 147
- Action control 6
- Action-habitat 219
- Activity systems 195
- Affective learning process, heuristic model 8, 9
- Algebraic reasoning 19, 25, 29
- Appraisals 1, 8
- Apprenticeship learning 141
- Aptitude Treatment Interaction 306, 313
- Area measurement, mediation 230, 233
- Argumentation 337-350
- Arithmetic operations, ability, development 19, 23, 28
- Ascending from the abstract to the concrete 249

- Blind copying 73
- Blind-deaf children 182, 201-215

- Causal attribution theory, motivation 148
- Cavalieri method 230, 233, 275
- Classroom grouping, talk 103-118
- Classroom restructuring, knowledge-building communities 140
- Coaching, metacognitive instruction at university 319, 322, 324, 333
- Code knowledge, word-search strategies 73, 80, 84
- Cognitive development, conflict and social marking 119-127
- Cognitive psychology 130
- Collaborative learning 111, 140, 321
- Communication, blind-deaf children 209
- Community of practice 252
- Competence 1
 - current selves and subjective competence 7
 - self-concept and self-esteem 3
 - self-efficacy 4
 - perception of control 5
- Computerized discovery environment, REFRACT 45, 48, 53
- Computer programming, metacognitive instruction 322
- Computer simulations of strategy choice 95
- Concept formation 46
- Conceptual model 306
- Conflict and social marking 119-127
- Constructive activity 132

- Control 5
- Conversation
 - classroom groups 108
 - conflict and social marking 120, 122
- Co-operative activities, university students 321, 333
- Co-operative classroom grouping, talk 103-118
- Criticism 254
- Cultural psychology 181, 188
 - development 190
- Cultural tools 263
- Culture 179
 - expansive learning 255
 - geometry education 217
 - measurement of 278
 - psychology of learning 283
 - research on learning 273
 - theory of development 187
- Current selves 7

- Davydov, V. V. 249
- Deck of cards model 230, 240
- Development
 - cultural theory 187-200
 - mathematical ability 20, 22, 32, 39
- Developmental psychology 190, 194
- 5th Dimension 197
- Discovery environment REFRACT 48, 53
- Discovery learning 305, 313
- Discrimination level analysis 26

- Encapsulation of school learning 243
- Enthymemes 338
- Expansive learning 254
- Expert-novice, problem situations 137, 290, 303
- Explanation, construction of 139

- Finding out 244
- Formal instruction, ratio concepts 167, 173
- Framer 233, 241
- Freudenthal, H. 223
- Future selves 14

- Gender, mathematical ability 37
- Geometry 182, 183
 - culture, Navajo Indians 217, 222
 - mediation, area 229

- Goal sketch 99
- Group interaction 104, 134, 141
- Guided learning 322

- Humanities, motivation in 151, 152
- Hypothesis-driven learning 45

- Imagery 291
- Individual differences
 - mathematical ability 27, 36, 40
 - strategy choice and discovery 89, 94
 - written language acquisition strategies 67-87
- Inductive thinking 46
- Innovation 135
- Instructional aid 305
- Instructional psychology 130
- Instructional simulation program, REFRACT 45, 48
- Intellect, development 20
- Intellectual ability
 - problem situations 289-302
 - working method 303-317
- Intrinsic motivation 147

- Japan, mediation and geometry 229
- Joint activity, child-carer 209

- Kindergartens 191
- Knowledge
 - construction 131
 - culture 218
 - problem situations, good and poor students 289-302, 303
 - representation and organisation 132

- Language, blind-deaf children 205, 209
- Lave, J. 252
- Learned helplessness 6
- Learning
 - as constructive activity 132
 - by expanding 254
 - culture 179, 273, 283
 - from examples 137
 - hypothesis testing 45
 - intellectual ability and working method 304
- Legitimate peripheral participation 252
- Letter knowledge 69, 83
- Level III learning 254
- Liberia 192, 194
- Localization strategies, word-search 73, 84
- Locus of control 5

- Mathematics
 - apprenticeship learning 142
 - cultural knowledge 217, 222
 - mediation and geometry 229
 - street 276
 - structure and development of abilities 19-43
- Mediation and learning 229, 261, 265
- Meshcheryakov, A. 201-215
- Metacognitive instruction, university students 319-336
- Mindful learning 332
- Min strategy 91, 97
- Modelling, metacognitive instruction at university 319, 322, 324, 333
- Moon phases 244
- Motivation in secondary education 145-159
- Multiplicative strategies 167

- Navajo culture 182, 217, 279
 - education 221
 - geometry 222
 - space 220
 - thought 218
- Novice learning, intellectual ability and working method 303-317
- Novice students, knowledge of problem situations 291

- Operational thinking, conflict and social marking 119-127
- Orienting-investigatory activity 208

- Paper-cut models 231, 234
- Phonological awareness 277
- Physics, knowledge of problem situations 289-302
- Preschool 192
- Primary humanization 209
- Problem solving
 - good and poor novice students 289-302
 - intellectual ability and working method 311
 - learning from example 137
 - models 296
 - novice-expert 303
- Productivity battery 29, 30
- Proportional reasoning 19, 24, 28, 161
- Psychology and education 129
- Psychology of learning and culture 283

- Quantitative-relational abilities 19-43
 - development 22, 26, 32, 39
 - individual differences 27, 36, 40
 - structure 21, 30
 - task batteries 28, 32

- Ratio concepts 161-175
- Reading acquisition 277
 - developmental models 67, 68
 - word-search strategies 72, 74
- Realistic learning environments 305
- Real-life learning 321
- Reasoning 217, 337-350

- Reciprocal teaching 140
- REFRACT 45, 48
 - learning behaviour 53
- Representation of knowledge 132
- Rhetoric 339, 347
- School learning 183
 - overcoming encapsulation 243-259
- Scientific research, cultural psychology 190
- Secondary education, motivation and de-motivation 145-159
- Second-order knowing 133
- Segmental awareness 81
- Self-assessment 1, 11
- Self-care skills 208
- Self-concept 3, 7
- Self-confidence, motivation 148
- Self-efficacy 4
- Self-esteem 3
- Self-regulated learning 133, 321
- Shapy 233, 237
- Simulation environment 305, 307
- Situational knowledge 134, 291
- Situational model 133
- Social context of learning 134
- Social interaction
 - classroom groups 103
 - university students 320, 321, 324, 333
- Social marking, operational thinking 119-127
- Sociocognitive conflict 119
- Socioculture 223
- Socioeconomic status, mathematical ability 27, 36
- Sociohistorical psychology 207, 210, 276
- Spacial knowledge 220
- Specialized Structural Systems 20
 - quantitative-relational 21, 26, 29, 38
- Sport, after-school activities 195
- Storytelling 221
- Strategies
 - choice and discovery 89-102
 - reading/writing acquisition 67-87
- Strategy instruction 319, 333
- Structuralism 20
- Structured learning environment 305
- Structuring resources 230, 266
- Subjective competence 1, 7
- Talk, co-operative classroom groups 103-118
- Teacher explanations 139
- Technical education, motivation 151, 153
- Textbase 133
- Textbooks 135
- Thinking strategies 332
- Third World 189
- Thought, Navajo culture 218
- Tools 263
- Tutor-group interaction 323, 327, 330, 333
- University students
 - knowledge of problem situations 292
 - metacognitive instruction 319-336
- Visual information 291
- Volitional control 6
- Wenger, E. 252
- Word recognition 68
- Word-search strategies, beginning readers 67, 72, 76
- Working method, intellectual ability and novice learning 303-317
- Written language acquisition strategies 67-87



